

REMARKS/ARGUMENTS

This response is filed in conjunction with a Request for Continued Examination (attached). Please reconsider the application in view of the above amendments and the following remarks. Claims 1-27 remain in this application. Claims 1, 10, 15, 16, 20, 22, 24, and 26 are amended herein. No new matter has been added by way of these amendments.

Applicant notes that the Examiner has considered Applicant's amendment of October 7, 2005, but has maintained his rejection. Applicant requests reconsideration in view of the enclosed arguments and amendments.

I. Revival of Abandoned Application

This paper is submitted in response to the Final Office Action dated December 13, 2005, for which the six-month date for response is June 13, 2006. Applicant has filed herewith a Petition to Revive Application Unintentionally Abandoned. Applicant also hereby petitions the Commissioner for an extension of time to cover the delay in filing this response. In view of these Petitions, Applicant requests entry of this Request for Continued Examination and Response to Final Office Action dated December 13, 2005. Please apply any charges not covered or any credits, to Deposit Account 07-1078 (Reference Number 94.0016).

II. Rejection(s) under 35 U.S.C § 112

Claims 1-27 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 1-27 also stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the

subject matter which applicant regards as the invention.

The Examiner suggests that the parent/child relationship of the sets/supersets is not described in the specification. Applicant respectfully traverses these rejections. However, for clarity, Applicant has amended the claims from parent/child to superset/set so that the claim language tracks more closely with the language of the specification, and the Examiner can better understand the claims. In particular, Applicant has amended the phrase “each superset has a parent relationship with each of its child” to “each superset is a superset of its related set” to conform to the language in the specification.

Applicant submits that support for the tree like structure and its configuration as recited in the current claims is provided in Applicant’s disclosure. Figure 14 depicts the arrangement of the tree-like structure with its root (56), branches (58, 60) and leaves (62, 64, 66, 68, 70, 72, 74, 76, 78, 80). The specification further details this hierarchy and the configuration of the underlying sets/supersets. *See, e.g., Substitute Specification at paragraphs 0067, 0068, 0075; see also Substitute Specification at paragraphs 0147-0149.* In particular, the relationship between the sets and supersets is described in the specification as follows: “supersets 62, 64, 66, 68, 70, 72 for the superset test data file 58, and supersets 74, 76, 78, or 80 for the superset test data file 60 of figure 14.” *See Id.* This disclosure defines the superset (62, 64, 66, 68, 70, 72) of the previous set (superset test data file 58), and superset (74, 76, 78, 80) of the previous set (superset test data file 60). *See Id.* Thus, Applicant submits that there is sufficient support in the disclosure for the amended claims (and the claims that depend therefrom).

The Examiner also suggests that the parent/child relationship of the supersets is contradictory to the Examiner’s understanding of a tree-like structure and parent/child hierarchy.

Applicant does not dispute that the root is the origin, the branches flow from the root, and that leaves are at the end of the tree as suggested by the Examiner. However, Applicant has altered the position of the parents/supersets and children/sets in the tree. In this case, Applicant has defined an unconventional tree-like structure that positions the parent/superset at the leaves, and the child/sets at the branches between the leaves and the root. This unique configuration is a key feature to the claimed invention and is recited in the claims accordingly. Applicant's current claims, therefore, correctly define its invention and are not contradictory. It is well known that Applicant can be its own lexicographer in defining its tree-like structure. *See MPEP § 2111.01*. **The Examiner's statement that one of skill in the art would know that the branches should be the parents (supersets), and the smaller branches or leaves the (sets) demonstrates quite nicely Applicant's position that the recited non-conventional tree-like structure is in fact not obvious. See Office Action, p. 3-4.**

In view of the above, Applicant requests withdrawal of the rejections under 35 U.S.C. § 112.

III. Rejection(s) under 35 U.S.C § 103

The Examiner rejected Claims 1-27 under 35 U.S.C. § 103(a) as being unpatentable over various combinations of Huang, et al. (U.S. Patent No 6,151,582) (**HU**) and Rumbaugh, et al. (Object oriented modeling and Design, 1991) (**RU**), Cowgill (U.S. Patent No. 5,835,566) and/or Gunsekara (U.S. Patent No. 6,018,497). Applicant respectfully traverses the rejection(s). Applicant submits that the Examiner has failed to establish a prima facie case of obviousness in that the cited references fail to teach each limitation as claimed, there is no motivation to

combine the cited references and the combination of references fails to achieve the claimed invention.

A. Legal Background

In the present case, the Examiner has rejected each of the claims on the grounds of obviousness under 35 U.S.C. § 103. It is well established that, before a claim may be rejected, the Examiner carries the significant burden of establishing a *prima facie* case of obviousness. According to MPEP § 706.02(j), for a claim to be rendered obvious, there must be: a) a suggestion or motivation to combine reference teachings, b) a reasonable expectation of success, and c) the references must teach all of the claim limitations. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

To support a claim of obviousness, the Examiner cannot rely on Applicant's disclosure to generate the requisite motivation. *See In re Vaeck*, 20 USPQ2d 1438 (Fed. Cir. 1991)(teaching or suggestion to make the claimed combination must be found in the prior art, not applicant's disclosure). The Examiner also cannot rely on hindsight reconstruction in support of an obviousness type rejection. *In re Bond*, 910 F.2d 831, 834, 15 U.S.P.Q.2d (BNA) 1566, 1568-69 (Fed. Cir. 1990) (vacating and remanding Board holding of obviousness). Where the prior art teaches away from Applicant's invention, there can be no suggestion to combine the prior art references to achieve Applicant's invention. *See Tec Air, Inc. v. Denso Mfg. Michigan, Inc.*, 192 F.3d 1353, 52 USPQ2d 1294 (Fed. Cir. 1999).

The Court of Appeals for the Federal Circuit has held time and again that "[o]bviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination." *In re Bond*, 910 F.2d at

834, 15 U.S.P.Q.2d at 1568, *quoting Carella v. Starlight Archery and Pro Line Co.*, 804 F.2d 135, 140, 231 U.S.P.Q. (BNA) 644, 647 (Fed. Cir. 1986) (affirming holding of nonobviousness); *see also, e.g., In re Stencel*, 828 F.2d 751, 755, 4 U.S.P.Q.2d (BNA) 1071, 1073 (Fed. Cir. 1987) (reversing Board holding of obviousness); *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. (BNA) 929, 933 (Fed. Cir. 1987) (reversing district court holding of obviousness). The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. *In re Fritch*, 23 USPQ2d 1780 (Fed. Cir. 1992).

According to the Federal Circuit, if the suggestion to combine prior art references is missing (as in this case), it is unlikely that the missing suggestion can be supplied through a showing of the level of ordinary skill in the art. *See Al-site Corp. v. VSI Int'l, Inc.*, 174 F.3d 1308, 40 USPQ2d 1161 (Fed. Cir. 1999). Moreover, the Federal Circuit has indicated that what may have been within the knowledge of one of skill in the art is insufficient absent clear and convincing evidence that one of ordinary skill in the art actually possessed such knowledge. *See Smiths Indus. Med. Sys., Inc. v. Vital Signs, Inc.*, 183 F.3d 1347, 51 USPQ2d 1415 (Fed. Cir. 1999). In fact, the Federal Circuit has reversed a decision by the Board of Patent Appeals & Interferences for hindsight reconstruction where the Board failed to cite specific information in the prior art that would suggest the combination of the prior art references. *See In re Dembiczak*, 173 F.3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999).

B. Examiner's Arguments

In the Final Office Action dated December 13, 2005, the Examiner indicates that Applicant's arguments filed on October 7, 2005 have been fully considered, but the arguments

with respect to 103(a) rejections are not persuasive. In support of this position, the Examiner argued the following:

10.1 As per the applicants' argument that "Applicant disagrees with Examiner's assertion that the tree like structure of RU is non-conventional and respectfully disagrees with Examiner's assertion that RU teaches that one or more of the supersets underlie corresponding ones of the sets in the tree-like structure, such that one or more of the sets is situated between the root and the corresponding superset; Applicant respectfully submits that the Examiner's arguments contradict the definitions given in the RU reference; the classification of subclass and superclass, both in RU and in the instant application, does not depend on whether one class has information not contained in the other class, but on the relationship between the two classes that is whether one class refines the other and inherits the other's features; the class being refined is called the superclass and each refined version is called a subclass; nevertheless, subclasses may contain more information than in the super class from which they derive, without changing their status as subclasses; as RU states, "Each subclass not only inherits all the features or its ancestors but adds its own specific attributes and operations as well; the instant application's use of the words "sets" and "supersets" is in accord with the RU references definitions of "subclass" and "superclass"; Claim 1 has been amended to recite, in part: "a case manager adapted for storing a plurality of sets and supersets of test data files, wherein each superset has a parent relationship with each of its child sets; Fig. 3.23 of RU depicts a conventional hierarchical tree like structure having a root and one or more leaves, but does not depict "the tree like structure being non-conventional in that one or more of said supersets underlie corresponding ones of said sets in said tree like structure, such that one or more of said sets is situated between the root and the corresponding superset" and "wherein each superset has a parent relationship with each of its child sets"; the subclasses shown in Fig. 3.23 of the RU reference do not have a parent relationship with their own superclasses; because the subclasses of the RU reference are not refined by their own superclasses and because only superclasses have "parent relationships" with their subclasses (and not the reverse), the subclasses of RU cannot become superclasses of their own superclasses according to RU's own definitions; therefore, RU does not have "one or more of said sets is situated between the root and the corresponding superset" and the RU reference does not meet the limitations of instant claim 1", the Examiner respectfully disagrees.

The limitation, "wherein each superset has a parent relationship with each of its child sets" does not have support in the specification in Paragraph 0168 and 0172, where the terms parent and children are not mentioned. The specification does not describe how the parent and children are related to the superset and set.

Claim 1 includes the limitation, "wherein each superset has a parent relationship with each of its child sets" and the limitation "said sets and supersets

of test data files being stored in said case manager in the form of a hierarchical, non-conventional tree like structure, having a root and one or more leaves, the tree like structure being non-conventional in that one or more of said supersets underlie corresponding ones of said sets in said tree like structure, such that one or more of said sets is situated between the root and the corresponding superset". One of ordinary skill in the art knows that in all tree structures, the root is the origin, the main branches follow the root and are children of the root, the small branches follow the main branches and are children of the main branches, while the main branches are the parents of the small branches, and the leaves are at the ends of the tree and are children of the small branches, while the small branches are the parents of the leaves. Therefore, when one states that the supersets underlie the sets in the non-conventional tree, it is implied that the supersets are children of the sets. Then stating that "each superset has a parent relationship with the child sets" is contradictory. In other words, one cannot have "a non-conventional tree like structure in which supersets underlie corresponding ones of said sets in said tree like structure, such that one or more of said sets is situated between the root and the corresponding superset" and at the same time "each superset has a parent relationship with each of its child sets".

Rumbaugh et al. teaches each superset having a parent relationship with each of its child sets and the sets and supersets of test data files being stored in the case manager in the form of a hierarchical, non-conventional tree like structure, having a root and one or more leaves, the tree like structure being non-conventional in that one or more of the supersets underlie corresponding ones of the sets in the tree like structure, such that one or more of the sets is situated between the root and the corresponding superset (Page 39, Para 3 and Para 5; Fig. 3.23; while Rumbaugh et al. depicts a subclass below its corresponding class, the subclass can derive information from higher class as shown in Figure 3.23; therefore, the class has a parent relationship with its child subclass; the subclass contains more information than the class or superclass above it; the subclass forms a superset (having more data) of the class or superclass (having less data) above it, while the class or superclass forms a set; as one goes down the class structure, more and more data is available to the lower classes, thus they forming supersets of the classes or superclasses (sets) above them; there is also no constraint in the database to the amount of data in various sets and supersets and the type of data in the sets and supersets).

C. Response to Examiner's Arguments

Each of the pending independent claims recites limitations relating to sets and supersets of data and files that are stored in a case manager to be selected by an operator. *See Fig. 13-14 and Substitute Spec at paragraphs 0067 and 0068.* The invention as claimed further includes limitations that provide that each superset is a superset of a related set in a non-conventional tree like structure having a root and one or more leaves. *See Id.* Moreover, the recited tree like structure is non-conventional in that one or more of the supersets underlie corresponding ones of the sets in said tree like structure, such that one or more of said sets is situated between the root and the corresponding superset. *See Id.* No such features are provided by the cited references (alone or in combination).

The Examiner suggests that Huang teaches many of the limitations of the pending claims, but concedes that Huang fails to teach key features of the claims, such as the limitations relating to the tree-like structure and arrangement of the sets and supersets. *See, e.g., Final Office Action, p. 6.* The Examiner turns to Rumbaugh to provide the missing teachings relating to the tree-like structure and arrangement of sets and supersets. *See, e.g., Final Office Action, p. 6.* Applicant does not dispute that Rumbaugh provides teachings relating to inheritance and ancestor/descendent relationships. However, the non-conventional tree-like structure claimed by Applicant is clearly different.

In the Final Office Action, the Examiner states that "one of ordinary skill in the art knows that in all tree structures, the root is the origin, the main branches follow the root and are children of the root, the small branches follow the main branches and are children of the main branches, while the main branches are the parents of the small ranches, and the leaves are at the ends of the

tree and are children of the small branches, while the small branches are the parents of the leaves.” See *Final Office Action*, p. 3-4. If, as the Examiner suggests, one of skill in the art would know this to be the structure, it could not be obvious to one of skill in the art to alter such known hierarchy to achieve Applicant’s claimed invention. Thus, the Examiner’s arguments demonstrate that the claimed invention is not obvious.

The Examiner suggests that Applicant’s claimed structure is not supported by the Specification. As discussed above, Applicant has modified the language of the claims to clarify the difference, and resolve the informalities raised by the Examiner. The Figures below depict difference between the conventional hierarchy of Rumbaugh and the non-conventional tree-like structure of the claimed invention. As shown below left, Rumbaugh teaches a conventional tree structure with Equipment defined as a superclass/superset at the root, and the various types of Pumps defined as subclass/set at the leaves.

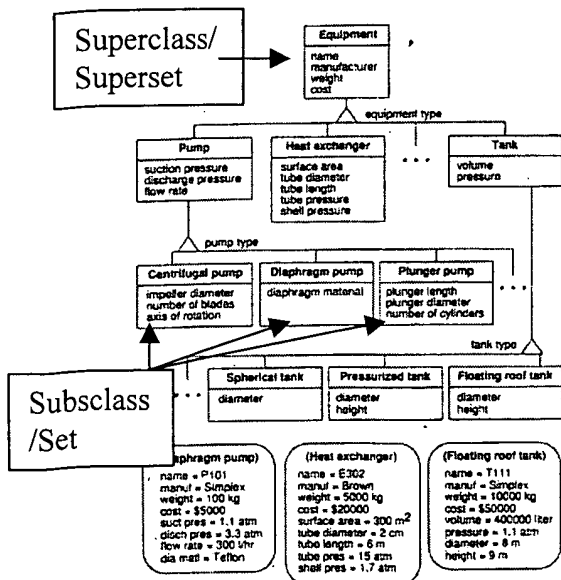
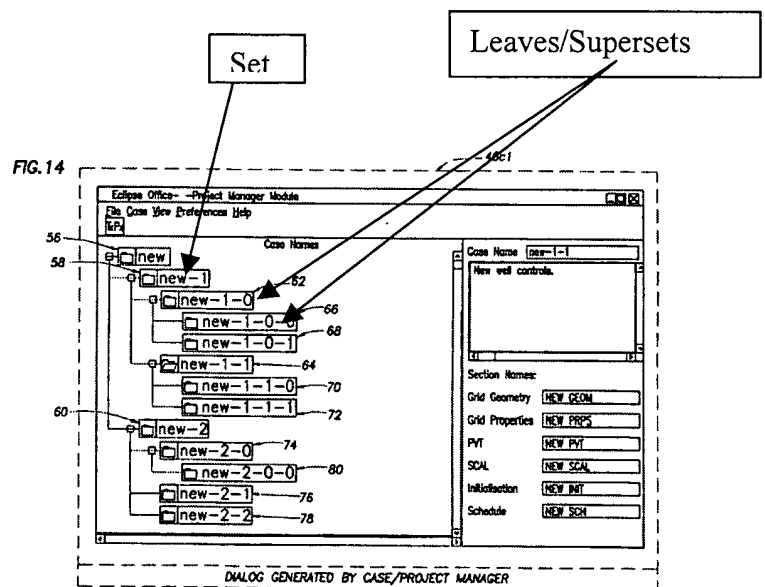


Figure 3.23 A multilevel inheritance hierarchy with instances

Rumbaugh
 Conventional Hierarchy



Claimed Invention
 Non-Conventional Tree-Like Structure

In contrast, as shown above right, the claimed invention uses a non-conventional tree-like structure with one or more of the sets/child sets situated between the root and the corresponding superset/parent. In other words, the parent (ancestor) of the non-conventional tree is positioned at the leaves, rather than at the root as taught by Rumbaugh. Unlike Rumbaugh which has the classes break down from a superclass into subclasses as you move from the root to the leaves, the claimed invention places the broader supersets at the leaves and the narrower sets between the root and the leaves. This non-conventional tree-structure, therefore, teaches away from the conventional tree-structure of Rumbaugh. In fact, such a structure is counter-intuitive and would not be obvious given the teachings of the cited references alone or in combination.

The Examiner suggests that the subclasses of Rumbaugh may be considered supersets of the superclasses above them. Applicant can locate no teaching in Rumbaugh to support such a position. In fact, Rumbaugh teaches away from such a position. In fact, Rumbaugh teaches that items in the subclass, such as the pump inherits attributes from the superclass Equipment. *See Rumbaugh, Fig. 23 and p. 39 first full paragraph.* Computer dictionaries also support the position that a superset is “[t]he class from which another class (a "subclass") inherits, the class it is based on.” *See Free Online Dictionary of Computing at <http://foldoc.org/>.* Thus, since the Pumps of Rumbaugh inherits from Equipment, the pumps are a class of the superset. In other words (when aligned the terminology to Applicant’s claim language), Rumbaugh’s Equipment is a superset and Pumps are a set and the superset is positioned between the root and the leaves. This configuration does not meet Applicant’s configuration of a set positioned between the root and the leaves.

The Examiner has also previously suggested that the hierarchy of Rumbaugh may simply be inverted to achieve Applicant's invention. If the hierarchy of Rumbaugh is inverted as provided on page 39 of Rumbaugh, the subclass is connected at the top and bottom of the bar. This, however, does not change the order of the root, set and/or supersets. Therefore, Rumbaugh, even when inverted, fails to teach a non-conventional tree-like structure with one or more of the sets situated between the root and the corresponding superset as recited in the claims.

The Examiner has conceded that Huang fails to teach the tree-like structure as recited. As indicated above, Rumbaugh also fails to provide the teaching of the claimed non-conventional tree-like structure. The remaining cited references also fail to teach such limitations. Thus, the art of record fails to teach, disclose or even suggest the claimed invention, and the rejection under 35 U.S.C. § 103 cannot stand.

D. Additional Arguments

Applicant reiterates its previous arguments which are reproduced below for convenience:

The Examiner states that **HU** teaches "a simulation system used by an operator and including a source of input data, a display, and a simulator adapted to be executed by a processor and generating a set of simulation results during the execution in response to the input data..., an organizing and managing system..., one or more of the sets and supersets of test data..., editing means..., and the simulator generating a set of simulation results...." (June 10, 2005 Office Action, page 3.) The Examiner further states that **HU** "teaches a case manager adapted for storing a plurality of sets and supersets of test data files, the sets and supersets of test data files being stored in the case manager in the form of a tree like structure." (June 10, 2005 Office Action, page 4.) The Examiner acknowledges, however, that "**Huang et al** does not expressly

teach the sets and supersets of test data files being stored in the case manager in the form of a hierarchical non-conventional tree like structure having a root and one or more leaves, the tree like structure being non-conventional in that one or more of the supersets underlie corresponding ones of the sets in the tree-like structure, such that one or more of the sets is situated between the root and the corresponding superset." (June 10, 2005 Office Action, page 4.)

The Examiner asserts that "**Rumbaugh et al [RU]** teaches the sets and supersets of test data files being stored in the case manager in the form of a hierarchical non-conventional tree like structure having a root and one or more leaves, the tree like structure being non-conventional in that one or more of the supersets underlie corresponding ones of the sets in the tree-like structure, such that one or more of the sets is situated between the root and the corresponding superset..." (June 10, 2005 Office Action, page 4.) Applicant agrees that **RU** teaches the sets and supersets of test data files being stored in the form of a hierarchical tree like structure having a root and one or more leaves, but respectfully disagrees with Examiner's assertion that the tree like structure of **RU** is non-conventional and respectfully disagrees with Examiner's assertion that **RU** teaches that one or more of the supersets underlie corresponding ones of the sets in the tree-like structure, such that one or more of the sets is situated between the root and the corresponding superset..."

The Examiner further asserts that **RU** "depicts a subclass below its corresponding class, the subclass can derive information from higher class as shown in Figure 3.23; therefore the subclass contains more information than the class or superclass (having less data) above it..." Similarly, in the section entitled "Response to Arguments," on page 33 of the June 10, 2005 Office Action, the Examiner states "that while **Rumbaugh et al** depicts a subclass below its

corresponding class, the subclass can derive information from higher class as shown in Figure 3.23. Therefore, the subclass contains more information than the class or super class above it, the subclass forms a superset (having more data) of the class or superclass (having less data above it), while the class or superclass forms a set. As one goes down the class structure, more and more data is available to the lower classes, thus they form[] supersets of the classes or superclasses (sets) above them. There is also no constraint in the database to the amount of data in various sets and supersets and the type of data in the sets or supersets."

Applicant respectfully submits that the Examiner's arguments contradict the definitions given in the RU reference. The classification of subclass and superclass, both in RU and in the instant application, does not depend on whether one class has information not contained in the other class, but on the relationship between the two classes, that is whether one class refines the other and inherits the other's features. The independent claims of the instant application have been amended to clarify this relationship.

1. The Definitions of Subclass and Superclass in the RU Reference Depend on Their Relationship.

The RU reference defines "superclass" and "subclass" on page 39, first full paragraph (underlined emphasis added):

*"Generalization is the relationship between a class and one or more refined versions of it. The class being refined is called the superclass and each refined version is called a sub class. For example, *Equipment* is the superclass of *Pump* and *Tank*. Attributes and operations common to a group of subclasses are attached to the superclass and shared by each subclass. Each subclass is said to inherit the features of its superclass. For example, *Pump* inherits attributes manufacturer, weight and cost from *Equipment*."*

Nevertheless, subclasses may contain more information than in the super class from which they derive, without changing their status as subclasses. As RU states, "Each subclass not only inherits all the features or its ancestors but adds its own specific attributes and operations as well. For example, *Pump* adds attribute *flow rate*, which is not shared by other kinds of *Equipment*." (RU, page 39, lines 16-18, underlined emphasis added.)

This does not, however, change *Pump's* relationship with *Equipment*: *Pump* refines *Equipment* (a pump is a type of equipment but the reverse is not true) and inherits attributes from Equipment, while Equipment does not inherit attributes from Pump. Therefore, according to RU's own definitions of subclass and superclass, while Pump is a subclass of Equipment, it cannot be a superclass of Equipment.

2. The RU Reference Does Not Meet the Limitations of Instant Claim 1.

The instant application's use of the words "sets" and "supersets" is in accord with the RU reference's definitions of "subclass" and "superclass," as described above. Claim 1 has been amended to recite, in part:

"a case manager adapted for storing a plurality of sets and supersets of test data files, wherein each superset has a parent relationship with each of its child sets, said sets and supersets of test data files being stored in said case manager in the form of a hierarchical, non-conventional tree like structure, having a root and one or more leaves, the tree like structure being non-conventional in that one or more of said supersets underlie corresponding ones of said sets in said tree like structure, such that one or more of said sets is situated between the root and the corresponding superset."

No new matter was added. Support for this amendment can be found, for example, in paragraph [0168] of the substituted Specification at page 48, which recites:

"[0168] Nomenclature

1. Base - first simulator run of the current project

2. Case - any subsequent simulator run where the grid geometry has been changed from its parent
3. **Scenario - any subsequent simulator run where the grid geometry remains the same as its parent"**

(Emphasis added.) Likewise, paragraph [0172] of the Substituted Specification at page 49 recites:

"[0172] Case

1. About - panel to show/enter case details
2. View - views input and output files associated with selected case/scenario
3. Load - loads selected case/scenario
4. Load As - loads selected case/scenario as a new case/scenario
5. Create - creates a new case/scenario from an existing simulator run
6. Delete - removes selected case/scenario and all children from project"

(Emphasis added.)

Fig. 3.23 of **RU** depicts a conventional hierarchical tree like structure having a root and one or more leaves, but does not depict "the tree like structure being non-conventional in that one or more of said supersets underlie corresponding ones of said sets in said tree like structure, such that one or more of said sets is situated between the root and the corresponding superset..." and "wherein each superset has a parent relationship with each of its child sets..." The subclasses shown in Fig. 3.23 of the **RU** reference do not have a parent relationship with their own superclasses (they have a children of their superclasses) and thus cannot be superclasses of their own superclasses, no matter how much information is contained in the each subclass. The relationship between subclass and its superclass does not change and inheritance (from superclass to subclass only and not the other way around) remains the same. Because the subclasses of the **RU** reference are not refined by their own superclasses and because only superclasses have "parent relationships" with their subclasses (and not the reverse), the subclasses of **RU** cannot become superclasses of their own superclasses, as suggested by the Examiner, according to **RU**'s own definitions. Therefore, **RU** does not have "one or more of said

sets is situated between the root and the corresponding superset" and the RU reference does not meet the limitations of instant claim 1.

3. Like Claim 1, Claims 10, 16, 20, 22, 23, 24, and 26 Are Patentably Distinct from the Cited References.

Like claim 1, claims 10, 15, 16, 20, 22, 24 and 26 have been previously amended to recite that the " each superset is a superset of its related sets" and had been previously amended to recite the "hierarchical, non-conventional tree like structure, having a root and one or more leaves, the tree like structure being non-conventional in that said supersets underlying corresponding ones of said sets in said tree like structure, such that one or more of said sets is situated between the root and the corresponding superset..." As with the amendment to claim 1, no new matter has been added. Accordingly, claims 10, 16, 20, 22, 24, and 26 are thus felt to be likewise patentably distinct over the combination of HU and RU.

Claim 23 depends from claim 22 and contains all of its limitations as amended. Accordingly, Applicant respectfully submits that this rejection has also been traversed with respect to claim 23.

Accordingly, Applicant respectfully submits that this rejection has been traversed and requests reconsideration and allowance of claims 1, 10, 16, 20, 22, 23, 24 and 26.

Rejection of Dependent Claims 2-9, 11-14, 17-19, 21, 25 and 27 Under 35 U.S.C. § 103

In the Office Action dated February 14, 2005, the Examiner rejected Claims 2-9, 11-14, 17-19, 21, 25 and 27 under 35 U.S.C. § 103(a) as being unpatentable over Huang, et al., (U.S. Patent No. 6,151,582) (HU), in view of Rumbaugh, et al. (Object oriented modeling and Design, 1991) (RU), and further in view of Cowgill (U.S. Patent No. 5,835,566) (CO).

Applicant respectfully submits that these claims all depend from independent claims described in Section A above and contain all of the limitations of the independent claims, as amended, from which they depend. For the reasons described in Section A, **HU** and **BH** do not render those independent claims obvious and the addition of **CO** does not supply the deficiencies of that combination. Accordingly, Applicant respectfully submits that this rejection has also been traversed with respect to dependent claims 2, 9, 11-14, 17-19, 21, 25 and 27 and asks for reconsideration and allowance of those claims as well.

Rejection of Claim 15 Under 35 U.S.C. § 103

In the Office Action dated February 14, 2005, the Examiner rejected Claim 15 under 35 U.S.C. § 103(a) as being unpatentable over Huang, et al., (U.S. Patent No. 6,151,582) (**HU**), in view of Rumbaugh, et al. (Object oriented modeling and Design, 1991) (**RU**), and further in view of Cowgill (U.S. Patent No. 5,835,566) (**CO**) and further in view of Gunsekara (U.S. Patent No. 6,018,497) (**GU**). Like the claims discussed in section A herein, Claim 15 as amended recites in part:

“wherein each superset is a superset of its related sets, said plurality of sets and plurality of supersets being organized in a hierarchical, non-conventional tree-like structure, having a root and one or more leaves, the tree like structure being non-conventional in that some of said case scenarios being supersets of other of said case scenarios in the tree-like structure with said supersets underlying corresponding ones of said sets in said tree like structure, such that one or more of said sets is situated between the root and the corresponding superset,...”

(Emphasis added.) As with the amendment to claim 1, no new matter has been added. For the reasons described above in Section A, a combination of **HU** and **BH** does not disclose or suggest such a flexible, hierarchical, structure and the addition of **CO** and **GU** does not supply the deficiencies of that combination. Accordingly, Applicant respectfully submits that this rejection has also been traversed with respect to claim 15 and asks for reconsideration and allowance of claim 15 as well.

For at least these reasons, Applicant submits that the Examiner has failed to establish a prima facie case of obviousness under 35 U.S.C. § 103. Applicant, therefore, respectfully requests withdrawal of the rejection of the claims.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case. Applicant believes this reply to be fully responsive to all outstanding issues and place this application in condition for allowance. If this belief is incorrect, or other issues arise, do not hesitate to contact the undersigned at the telephone number listed below.

Date:

11/5/07

Respectfully submitted,

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